Bayou Boardinghouse

The HUMBLE WAY

MAY-JUNE, 1945

The HUMBLE WAY

Vol. 1 MAY-JUNE, 1945 No. 1

THIS IS THE HUMBLE WAY

THIS IS THE FIRST ISSUE of a new Humble magazine designed to give Humble employees, stockholders, and others who are interested a better knowledge and understanding of the work Humble people are doing, how they are doing it, the progress they are making. The scope of the magazine will be broadened to include material relating to affairs of the petroleum industry generally as well as to Company affairs. Humble people, located as they are from New Mexico to Florida and all the states in between, are interested in knowing more about each other, how they live and how they work; this magazine, it is hoped, will form a connecting link between these widespread groups and with the home office, drawing all these elements closer together with the bonds of knowledge and understanding.

This magazine is called THE HUMBLE WAY. The simple, three-letter word "way" is one of the most distinguished in our language. It has many meanings and connotations, nearly all of which fit nicely in with some phase of the thought pattern the title of this new magazine should convey. "Way," to quote one definition, is "that along which one passes or progresses to reach some place; a course from one place to another." "Way" also means "room to advance, to pass or progress; hence, freedom of opportunity." "Way" is the "manner, the method, the mode, the means" by which anything is accomplished; it denotes a "regular course, a habitual method of life or action"; and it carries the note of "resolution, a determined mode of action." The word "way" is a strong word.

There is, and always has been, a Humble way of doing things. It is a distinct way. The men who founded the business had certain very definite ideas about the way it should be conducted and the relationship of the new Company with its employees and with the public; after more than twenty years of practical application, these ideas were set forth formally in 1938 as a statement in the printed booklet "Working with Humble." That statement is reprinted here:

> Since its organization, Humble has held these fundamental conceptions of its functions and dealings:
>
> 1. A corporation justifies its existence and endures only if it performs a worthwhile service.
> 2. In order to fulfill its mission and to endure, a corporation must be fair and square in its dealings with the public, with its competitors, with its stockholders, and with its employees.
>
> These fundamental conceptions are the bedrock on which Humble relationships are built. On this foundation the Company stands; and if the superstructure is made to conform, it has every right and reason to endure, to expect public acceptance, and to receive in return fair treatment by the public. By the application of these conceptions, there should be no conflict between the Company (or any corporation which applies them) and the public. Likewise, there should be no conflict between the Company and its employees; their interests are common; they have a common economic destiny; and their every relationship becomes one of mutual helpfulness, understanding, and confidence.
>
> In carrying out of these basic principles, the employee plays a major part. One of the chief avenues by which the Company is interpreted to the public is through its employees. Our business is far-flung; employee groups are located in scores of communities in all parts of the area in which Company operations are conducted. Thus, Humble people are in daily contact with the life of the communities in which they live and make their homes. Each employee should recognize his obligation to see that the Company is reflected in its true light; that misunderstandings are not allowed to arise. A conscious effort on the part of every individual employee to do his part toward making friends for the Company will result, in the aggregate, in a high degree of understanding and good will. Public opinion is only the multiplied opinion of individuals.

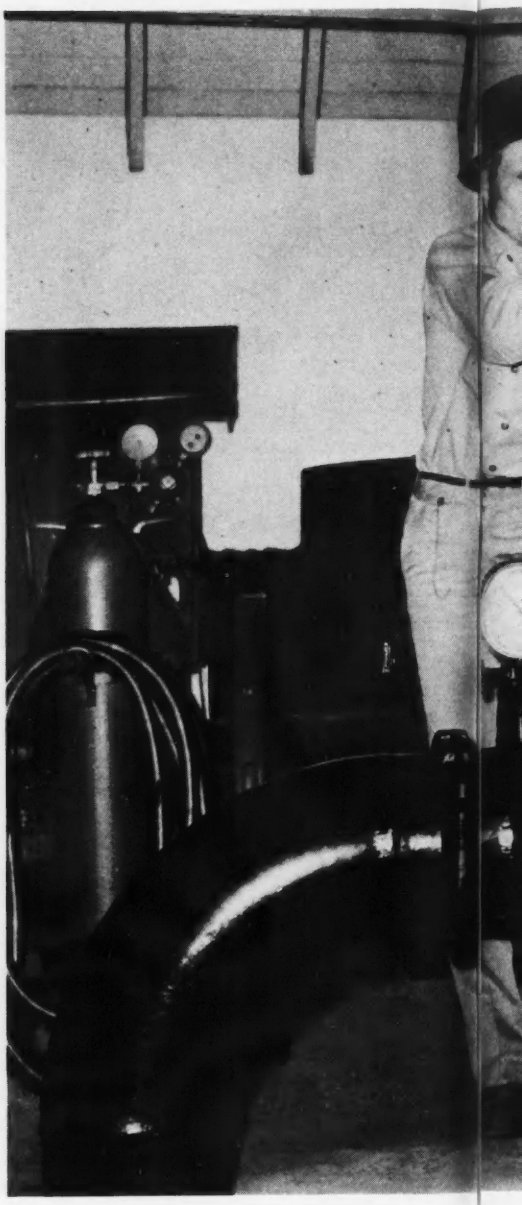
The broad principles set out in that statement chart the course and set the basic pattern for the Humble way; its way with its employees, its way with those with whom it has business relations, its way with all people generally. This way, itself, is based on honesty, fair dealing, good business methods, a sense of responsibility; it is the right way.

Over more than a quarter century, Humble men—both those who directed its operations and those who carried them out—have followed that way to a remarkable degree. Because at best men are imperfect, there have been mistakes of course; likewise, there will be mistakes in the future. But the accomplishments of Humble people in the past stand as eloquent testimony that through the years the Humble way has been predominantly the right way.

May the Humble way always be the right way.

Humble Oil & Refining Company's Toney No. 25 in the West Ranch field. Mud Engineer pictures appearing on Pages 10, 11, and 12 were made on this rig.

AT THE BIG INCH LONGVIEW STATION, a pumper adjusts the valve on one of the three booster pumps which feed the crude into the suction lines of the main pumps under pressure.



The HUMBLE WAY

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HUMBLE OIL & REFINING COMPANY
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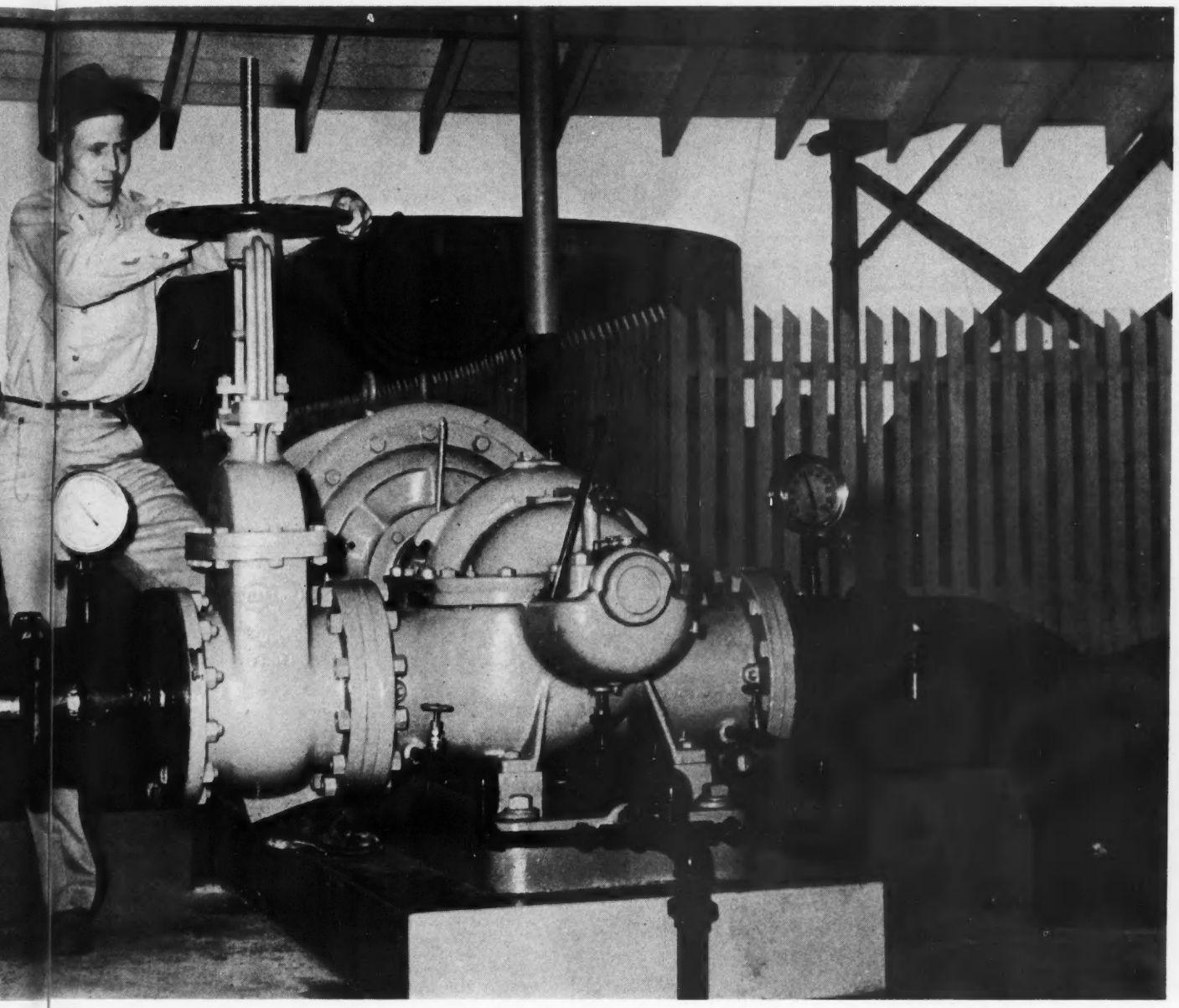
From the far reaches of Texas come the one hundred million barrels of crude which annually move through Big Inch to the East

Picture Credits: Inside Front Cover: Harry Pennington, Jr., for Humble; Pages 3-6, Staff photos; Pages 7-9, Harry Pennington, Jr., for Humble; Pages 10-12, U. S. Signal Corps; 13-19, Staff photos; Pages 20-23, U. S. Signal Corps; Top Page 23, Staff photo; Pages 24-26, U. S. Signal Corps, Coast Guard, and Staff photos; Page 28, Harry Pennington, Jr., for Humble; Inside Back Cover, Harold Corsini.



Eastward Ho!

OUT of the almost unintelligible jumble of words issuing from the gray-painted loudspeaker on the wall of the immaculate pumphouse came startlingly clear the call: "Longview—Longview." The pumper pocketed the rag with which he had been polishing an already gleaming gauge and hurried to his tight little office separated from the steady hum of the pumps. Clasping the telephone to his ear he received his orders from the dispatcher in Cincinnati as the loudspeaker echoed their words for all to hear.

Finishing, he cradled the phone and with unhurried precision he and his assistant adjusted the red-wheeled valves in the suction and discharge lines of the pumps, starting additional barrels of Texas crude on their thirteen-day journey to the Eastern Seaboard.

This compact pump station, spotless as a bride's kitchen, quiet except for the untiring loudspeaker, is the portal to Big Inch. The hungry maw of the 1450-mile serpent that writhes eastward to the Atlantic.

Here at Longview the precious petroleum, except for which refineries in Pennsylvania, New Jersey and New York would stand idle, starts a trip that ends in the thundering engine of a mighty bomber, the clanking ponderousness of a lumbering tank, the hissing roar of a flame-thrower. Here is the vortex of a huge funnel that takes oil from the rich fields of Texas to the battlefields of the world.

The story of Big Inch has become almost legendary. The obstacles encountered in its conception; the miracles accomplished in its construction; the vastness of its physical statistics. "Big Inch solved the tanker shortage"—"Big Inch won the Battle of the Atlantic"—"Big Inch powered the invasion of the Continent"—"Big Inch broke the back of Germany"—extravagant statements that are, of course, only partially true. Yet, peculiarly enough, four years to the day after the late W. S. Farish* called the first meeting of industry members to consider the construction of a privately financed giant pipe line to the East, the world celebrated the unconditional surrender of the German Wehrmacht.

From the day in August, 1942, when the construction of the $105,000,000 project began, until February 13, 1943, when the first crude was received at the Norris City, Illinois, loading rack, the public watched the race of Big Inch construction against the growing submarine menace. While Texas crude flowed into Norris City, the final section from Illinois to the East Coast was being completed. And with the ceremonies attending the making of the final weld at Phoenixville, Pennsylvania, on July 19, 1943, the job was finished—or really just begun. Because the Big Inch without oil is like a railroad track without trains, and while the 26 powerful booster stations could push 300,000 barrels a day through the line—the oil had to start somewhere.

The portal of Big Inch was located at Longview to tap the tremendous underground reserves of the great East Texas oil field, but it was apparent that East Texas could not supply all the oil necessary to operate Big Inch at capacity. Fortunately, in addition to being situated in the East Texas field, the Longview portal was also convenient to the pipe lines which normally carried East Texas crude to Gulf Coast refineries. Lines which in turn connected with the vast network of pipe lines which reach the oil fields in all parts of the state. The only problem was to reverse the flow in the lines carrying crude *from* Longview and make them transport oil *to* Longview to feed Big Inch.

At the request of the Petroleum Coordinator, studies and recommendations as to the method by which this might be achieved were made by the Transportation Committee of District 3, headed by H. C. Wiess, Humble President. This committee recommended that four lines from East Texas to the Gulf Coast be reversed. This was not as simple as it sounds. Manifolds at all pumping stations required rearranging to allow the crude to flow in the opposite direction, an additional station here and there became necessary, some miles of connecting lines had to be built. All this construction went on and a total of 3,303 miles of lines were reversed as Big Inch was being completed.

To make West Texas crude available for the Big Inch, Humble Pipe Line Company reversed 185 miles of lines between Hearne Station and Longview. West Texas crude collected at Kemper Station, about seventy miles west of San

* Former Humble President; president of Standard Oil Co. (N.J.) at the time of his death in 1942.

EMERGENCY CONVERSION . . . FROM GAS TO OIL.

THE TELEGRAPHER AT Humble Pipe Line Company's Longview station is the connecting link between the Big Inch dispatching system and Humble Pipe Line's 8,000 miles of trunk and gathering lines. Through telegraph contact with the Houston office, crude is routed to Longview to meet the requirements of Eastern refineries.

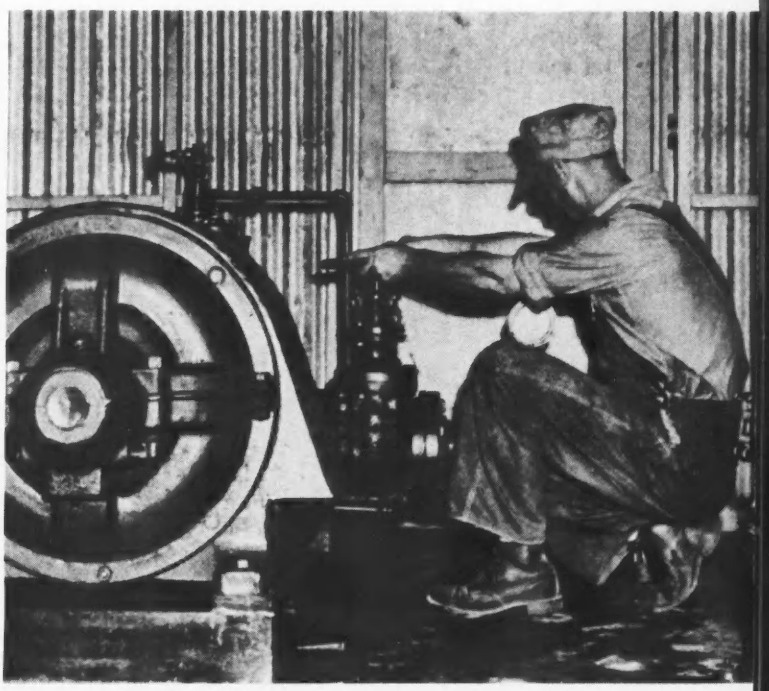
Angelo normally could be sent south to Ingleside or east to Comyn for transportation south via Hearne to Baytown. By reversing the flow in the Hearne-Longview line, the West Texas crude could be picked up at Hearne and then could move north and east to the Longview Station. Through this same line, West Texas crude delivered by others to the Humble Pipe Line station at Mildred, seventy-five miles north of Hearne, could come south to Groesbeck and then go eastward to Longview.

The first deliveries of West Texas crude went into the Big Inch on June 16, 1943, and six days later was loaded into tank cars at Norris City—a month before the Eastern section of Big Inch was completed.

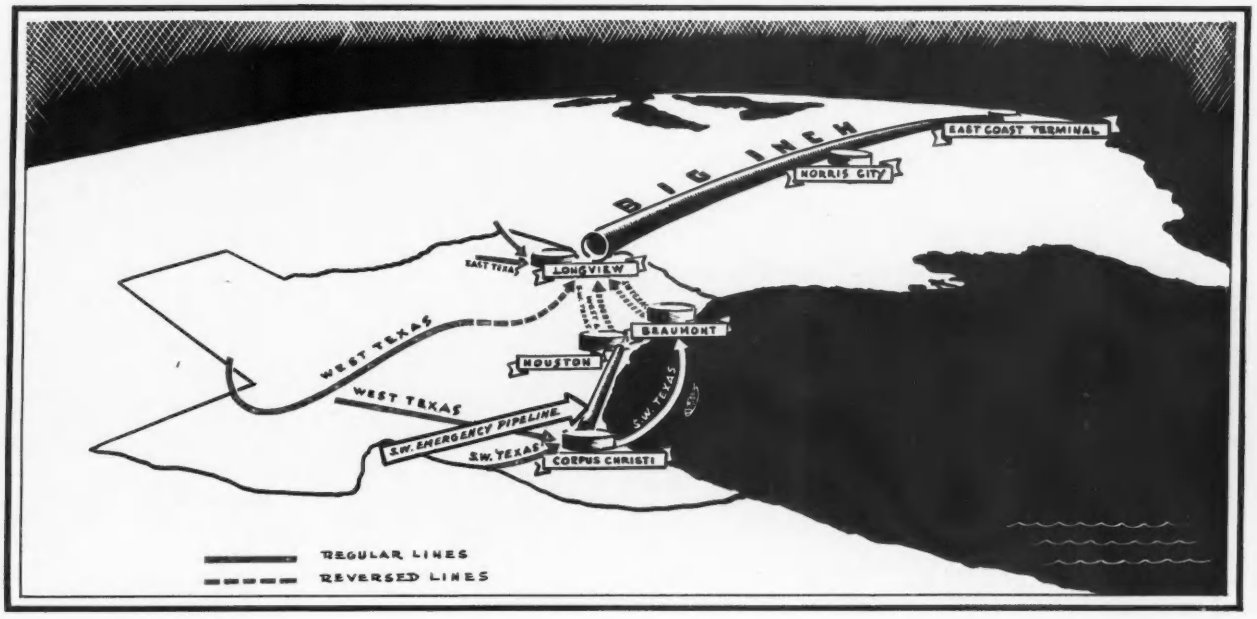
Other companies had reversed their lines from the Houston-Baytown area and were bringing in West Texas and Southwest Texas crude by tanker, barge and pipe line and then pumping it north to Longview. To accelerate delivery of this crude to the northbound lines, Petroleum Administration for War authorized the conversion of a 16-inch Southwest Texas gas line into an oil line. At the request of P.A.W., Humble Pipe Line Company acted as agent in the conversion of this line and the construction of 24 miles of connecting lines and five pump stations. The five companies that were to furnish the crude reversed their lines into the Ingleside region to feed into the Heard portal of the new line, and by October, 1943, this Southwest Emergency Pipe Line was delivering 75,000 barrels of West Texas and Southwest Texas crude daily into the Houston terminal.

With this diversification of Texas crude to draw from and this flexible transportation system to get the crude to Longview, Big Inch began to deliver in volume and variety the oil for which Eastern refineries hungered. At present Big Inch is transporting approximately 320,000 barrels of crude oil daily. Of this quantity 123,000 barrels are East Texas oil, 123,000 are West Texas, and 74,000 are from Southwest Texas.

While Humble Oil & Refining Company supplies an average of 107,000 barrels daily or one-third of the total oil



THE LONGVIEW PORTAL TO BIG INCH is convenient to the maze of pipe lines which serve the oil fields in all parts of Texas. Lines which normally carried East Texas crude *from* Longview were reversed to bring crude from West Texas and Southwest Texas into the Longview area. A single centrifugal pump (right) delivers an average of 14,000 barrels of West Texas crude daily from Humble Pipe Line's Longview station to Big Inch for shipment to the East.



carried by Big Inch, only a small portion of it comes into Longview through Humble Pipe Line Company lines.

Of the 74,000 barrels of Southwest Texas oil carried by Big Inch, Humble supplies 28,000 barrels currently, gathering it in the Corpus Christi area. A portion is delivered to the Southwest Emergency Pipeline at Heard. S.E.P. carries to Houston where Pan-American and Shell pick up for transportation to Longview. The remainder is shipped by boat to the Beaumont area for transportation via reversed lines to Longview.

Humble supplies 54,000 barrels daily of West Texas crude to Big Inch. Ten thousand barrels are picked up at Mildred by Humble Pipe Line, taken south to Groesbeck and then eastward to Longview over the reversed lines. The remaining 44,000 barrels are delivered in the Corpus Christi area and travel the route of the Southwest Texas crude.

Only 25,000 barrels of East Texas crude are being supplied daily by Humble. Fifteen thousand barrels are delivered by Humble Pipe Line through its Longview station, and the remainder is delivered by others direct to Big Inch.

Crude to be transported by Big Inch is collected in the storage tanks of the various companies in the Longview area since tankage at the Big Inch station is sufficient for only three days pumping. When asked to do so, the companies pump the crude from their storage out to the Big Inch tank farm.

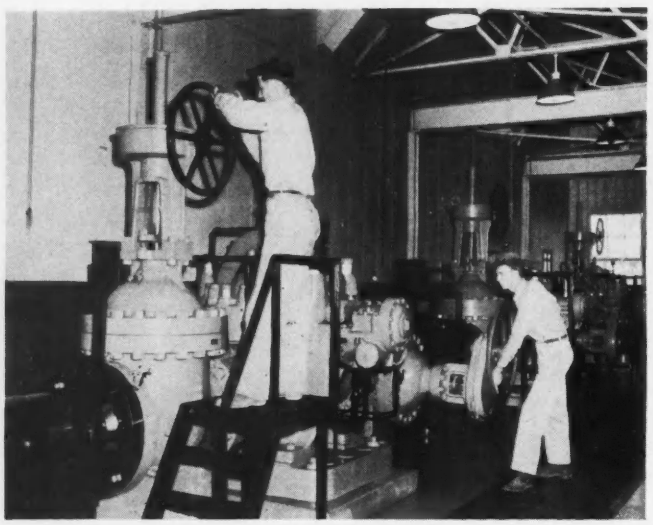
At Humble Pipe Line's Longview station a single electrically-driven centrifugal pump delivers an average of 25,000 barrels a day into an eight-inch line that goes over to the Big Inch farm. This line along with the lines from seven other suppliers ties in to the 24-inch through which all East Texas crude reaches Big Inch storage. It also ties into the 16-inch line which receives West Texas crude from Humble Pipe Line and four others. It is possible, if necessary, to pump into the 12-inch line which at present receives Southwest Texas crude from three suppliers.

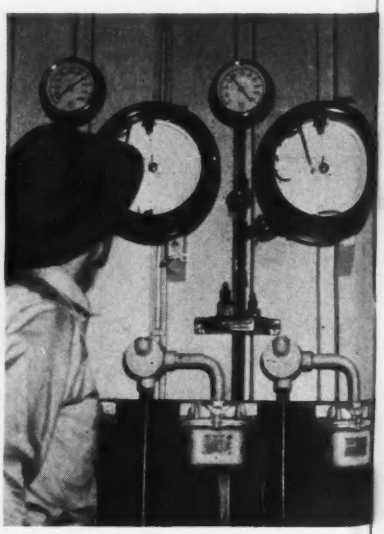
The daily volumes of various crudes mentioned here as carried by Big Inch are of course averages over a period of time. Actually, only East Texas crude may be pumped for several days, followed by West Texas or Southwest Texas oil. However, all varieties of crude may be pumped in a single day depending upon the requirements of the Eastern refineries.

Upon receiving the orders for delivery of a batch of crude, the Big Inch Longview station cuts in the proper storage tank and three 10″ booster pumps, located under a shed outside the main pumphouse, pump from the tank directly into the suction of the main pumps raising the pressure to about fifty pounds per square inch. The three 12″ x 16″ main centrifugal pumps are electrically driven by 1500 horsepower motors and are series connected, that is the first pump discharges into the suction of the second, and the second discharges into the suction of the third. The first pump raises the pressure to about 250 pounds, the second to about 500 pounds and the third sends the oil into Big Inch at a pressure of about 800 pounds per square inch.

At a speed of 4½ miles an hour the Texas oil starts its long journey to the coast pushing ahead of it the 4,000,000 barrels in the line. As it moves the dispatcher at Cincinnati follows its progress from station to station through the medium of his ever-open telephone line. And the loudspeakers echo his words as ever eastward, at the rate of 100,000,000 barrels a year, Big Inch delivers the oil.

ORDERS FROM THE DISPATCHER at Cincinnati bring action in the Big Inch Longview station. The first main pump picks up the oil from the boosters at 50 pounds pressure and sends it to the second pump at 250 pounds; the second moves it to the third at 500 pounds and the third pumps directly into Big Inch at 800 pounds per square inch. Daily, 320,000 barrels of Texas crude move eastward.





THIS IS LONGVIEW STATION . . . CRACK THE SUCTION VALVE A LITTLE MORE, EASE UP ON THE DISCHARGE . . . PRESSURE OK.

A CHEMICAL ANALYSIS OF MUD IS MADE PERIODICALLY TO DETERMINE SALT CONTENT. TEST REQUIRES ABOUT 15 MINUTES

Mud Engineer

His task is to make certain that drilling fluid meets all qualifications to perform four vital functions in well

WHILE the title, Mud Engineer, may seem like a somewhat ludicrous one to people not familiar with oil industry terminology and operations, it is a recognized fact in oil drilling circles that upon the shoulders of the men with that title rests much of the responsibility for the successful completion of a high percentage of wells drilled. Because mud engineering is one of the unique and highly skilled professions within the industry, a comprehension of the duties of the mud engineer pre-supposes a basic knowledge of the need for and the purpose of drilling mud.

Drilling mud is not a simple mixture of earth and water; it is a chemical product, engineered especially to serve four vital purposes in a drilling well: to lubricate the drilling bit on its downward journey; to form an impervious wall or cake on the face of the hole; to bring bit cuttings from the bottom of the hole to the surface; and to serve as a column of enormous weight to suppress any abnormal gas pressures which might be encountered—pressures potentially great enough to cause a "blowout" and result in a wild well.

Drilling mud is constantly circulated through the drill pipe by powerful pumps, and to serve its four important functions it must be mixed to varying specifications of weight and viscosity to meet conditions in any given well.

The mud program for each well is set out in advance, just like the pipe pro-

gram, and unless unforeseen difficulties arise that charted program is carried out largely under the watchful eyes of the derrickman who doubles some as a mud man. However, on "wildcat" wells and on wells projected to great depths (knowledge of sub-surface conditions being limited) the mud engineer keeps a weather eye on the drilling fluid and is "on call" at all times.

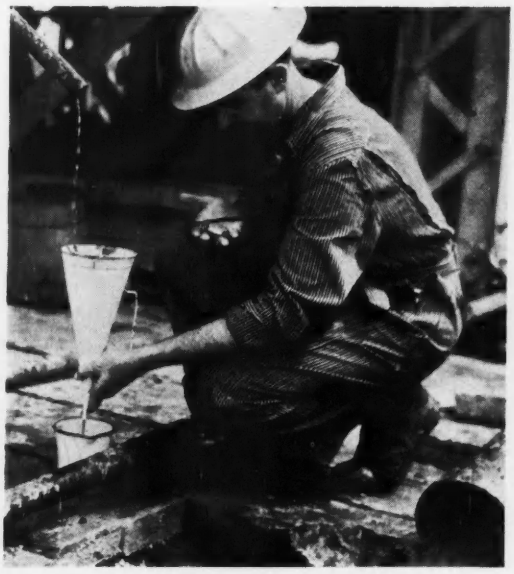
On these pages, mud engineer Ralph Hill of the Gulf Coast division is pictured performing the tests and checks which make up the normal routine of a Humble mud engineer.

FEELING

MEASURING

WEIGHING

CONSISTENCY, VOLUME, and weight of mud are important. The mud engineer frequently feels the drilling fluid for consistency, and experienced fingers tell him fairly well if the mixture is correct. He also measures the amount of mud in the pit, because here is where he can determine whether or not there is any loss in return. And because the weight of mud is so important to the control of formation pressures, it is weighed regularly. The weight of drilling mud is controllable to within a half-pound per gallon.



TESTING VISCOSITY

VISCOSITY OF MUD is also important. A one-quart sample is taken from the mud return line, is strained and timed with a stop watch. Normal time for the mud to flow through is from 37 to 40 seconds. In addition to the various tests, the mud engineer regularly checks actual operating experience against the mud program which is laid out in advance of the drilling of each well. When conditions require, chemicals and weighting materials are added to the drilling fluid. Sometimes chemicals are also added through barrels into the mud system. With the mud measuring up to all specifications the mud engineer checks and adjusts the depth at which the pump suction is drawing mud from the pit . . . and finally he settles down comfortably in his car to await results.

AWAITING RESULTS

CHECKING PROGRAM

ADDING CHEMICALS

ADJUSTING SUCTION

FIGHTING GAS moves up

By COL. MARVIN CHARLTON
Commanding Officer
1585th Quartermaster Group (AVN.)

Former Employee Tells of Trucking Fuel and Bombs to the Fighting Front

A NINTH AIR FORCE SERVICE COMMAND GROUP, FRANCE—Forty million gallons ago, cargo trucks of this group were hauling their first loads of 100-octane aviation gasoline to the first fighter-plane landing strip built by American forces on the fringes of the invasion beaches in France.

That gasoline was hauled from the beaches by cargo trucks. It was "packaged" gas, loaded in jerricans. The jerricans were stocked at the field as a temporary storage plant.

Other airfields mushroomed into operation, built by the Engineers of the Ninth Air Force with landing mats and other equipment from England. As more and more fields were built across Northern France and in Belgium, our distribution lines expanded to follow the battlefronts. From a few six-by-six cargo trucks hauling gas in the limited Normandy area during the first weeks of the war, the POL distribution setup of this Ninth Air Force Service Command Group grew into a vast network operating in France, Belgium, Holland, Germany and Luxembourg.

By the end of January, the total gallons of aviation fuel hauled by our cargo and tanker trucks had passed the 40,000,000 mark.

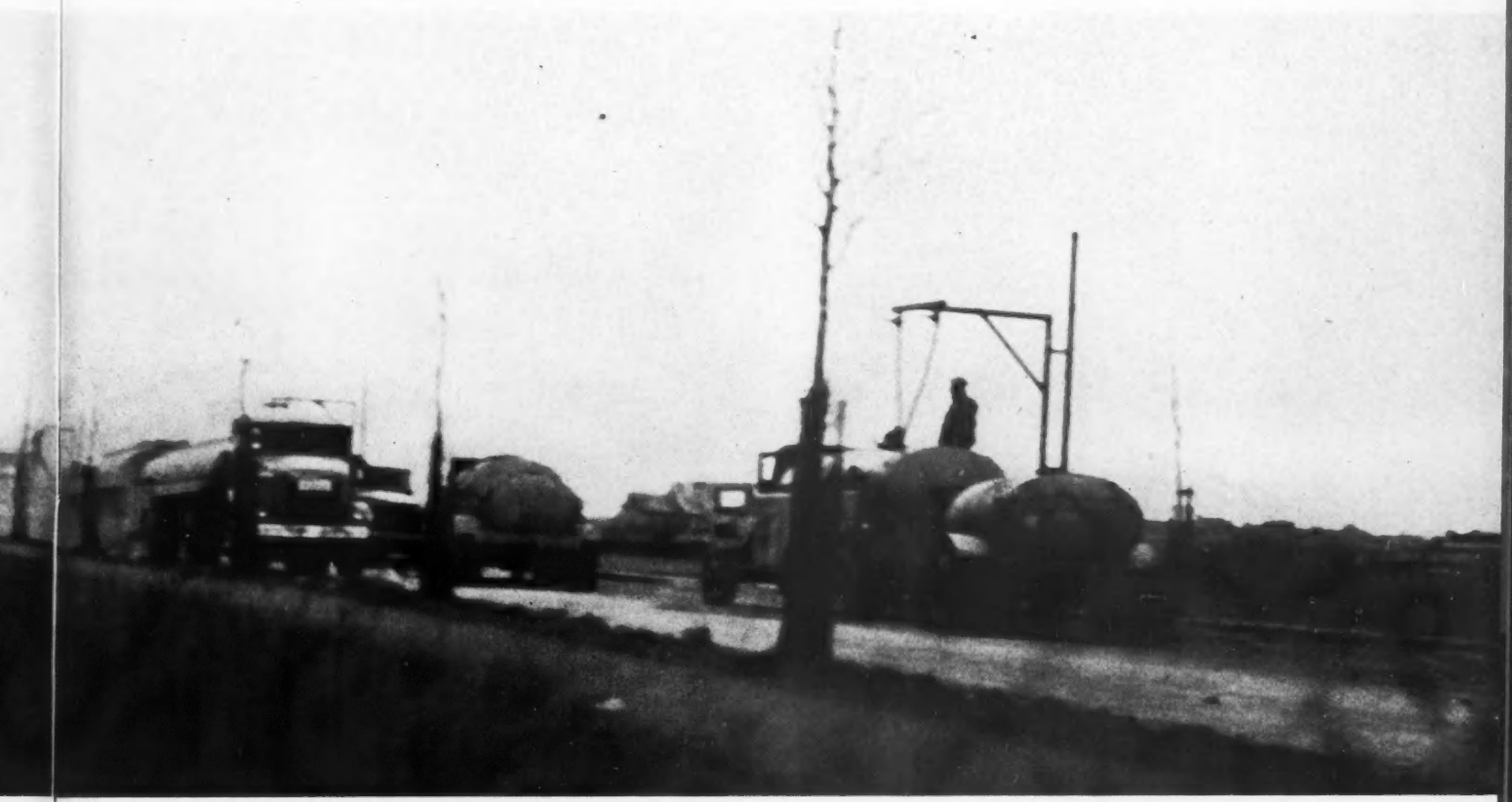
It's a long way from the delivery setup in operation when we entered the petroleum business in the early '20s. We used Model T trucks in the old days back in Texas; trucks that carried about 300 gallons on a load. Distributing 1,000 gallons was considered a pretty good day's work.

The F-1 double-trailer units we're using today can haul nearly 27 times the load the Model T delivery trucks carried and they can haul it a lot faster, even under the road conditions we ran up against over here.

The job of direct support of the invasion began for the 1585th Group before the first of our companies reached France. On D-day, our tanker units rolled onto the airfields in England to gas the fighter-bombers of the Ninth Air Force when they returned from shuttle-runs across the channel where they were blasting the coastal fortifications and the enemy's supply lines. This direct tanker-to-plane service saved valuable time when every minute counted most in the invasion schedule.

The next day—D plus 1—the first section of trucks in this Group waded off a landing barge onto one of the beaches. The trucks carried loads of landing strip mats for Airfield No. 1 of the Allied Expeditionary Forces.

From then on, more and more of our units landed in France to increase the cargo fleet which was hauling gasoline, bombs and other supplies for the Ninth Air Force. We expanded the delivery system for the fighter-bomber planes based in Normandy. The plans for op-



LOADED AND ROLLING ONE CONVOY HITS THE ROAD TOWARD THE FRONT WHILE ANOTHER TAKES TO THE HOSES.

eration were set up long before the invasion, and were carried out without a hitch.

All deliveries were made by cargo trucks with jerrican loads until the first of our tanker-trucks came over on July 4. It was a big job and a tough job. Roads were torn up by shell craters and they were covered with the debris of war. The trucks carried out their missions along routes that were in range of the enemy's artillery and sniper fire and through fields where mines were buried and where any truck moving off the taped lane might have run into disaster.

There were enemy air raids nearly every night in those early days. It wasn't just the bombs that brought trouble; the roads would be littered with shrapnel from the AA guns and these steel fragments caused more tire failure than any other item.

The engineers kept building new fields, the trucks of the 1585th Group brought in the stuff to keep the planes flying and the fighter-bombers smashed away at the enemy to knock out huge numbers of tanks, trucks and other motorized equipment. They couldn't have kept going without the gasoline and our Group made sure no planes were grounded because they lacked it.

On July 4, the first platoon of the tanker-trailers from our 1515th Battalion waded ashore. The 1515th, a colored battalion staffed by white offi-

COL. MARVIN CHARLTON of Del Rio, who prepared the accompanying article, is commanding officer of the 1585th Quartermaster Group (AVN), a Ninth Air Force Service Command unit which carried gasoline, bombs and other supplies from storage dumps to forward airstrips in the European war. He was awarded the Bronze Star Medal for meritorious service in this essential work on April 10, 1945.

Colonel Charlton spent 13 years in the Company's Sales department. He began his career with Humble as bulk agent at Austin in 1924, took over the San Antonio bulk agency in 1928, and served as San Antonio district manager from 1931 until he resigned in 1937.

In a letter accompanying this article he praised highly the work of men in his organization, and in the picture at left he is shown pinning a decoration on one of them.

cers, had been on duty in "buzz-bomb alley" back in Southern England. Now they were ready for duty in a spot that was a lot hotter.

All through July, other companies of tank-trailers arrived in France. Some of them had to wade ashore in as much as three feet of water while bringing in loads of 4,000 gallons.

About the middle of July, one platoon, commanded by First Lt. James E. Smith of Columbus, Ohio, landed, dewaterproofed its vehicles and immediately headed for a P-51 airstrip with its load.

This unit established a record for getting into operation. Usually a new outfit coming across would lay over a day or so to get orientated, but Lt. Smith's platoon was right on the job a couple of hours after leaving the boat. The next morning, 20 trucks of that platoon started shuttle-runs between gas dumps and airstrips.

Our lines of operations stretched out fast and far after the St. Lo break through and we followed the tanks and infantry dashing across France. Our convoys got into some hot spots running along the Falaise Gap area but the drivers were pretty well used to enemy action after the experiences they had in Normandy and Brittany.

We used to haul 30, 40 or 50 miles at a stretch before the breakthrough. After that the runs lengthened into 200. 300 and more miles from the bulk areas to the new airstrips—two or three days for the round trip. That meant the men drove all day and into the night, eating cold rations, sleeping in their cabs or on the ground and meeting any and all kinds of weather and road conditions.

But they kept 'em rolling and kept delivering the goods, right through the mud of autumn and the ice and snow and blizzards.

In June and July, we used to bring jerricans from the beaches to the dumps and airfields. We moved a lot of gas that way but the amount doesn't look so big compared to what we moved during the drive across Germany.

The POL battalion could haul 660,-850 gallons in one trip if all the equipment were rolling at the same time.

Detachments and companies of the battalion were scattered all over the battle zone and the Zone of Communications. Some units operated from a bulk station point to supply airfields in that particular area. Others hauled from railheads and pipe lines to the bulk areas so there was a constant movement of gasoline in and out of storage.

When the Germans were making their counter-attack in December, our tank trucks made the long hauls directly from the railheads and pipe lines to the landing strips. The enemy strafed the trucks and shelled the convoys and some of our companies ran into a lot of V-bomb activity. A V-1 caused the greatest tragedy this Group suffered. The bomb landed on a company bivouac area in Belgium, killing three of our men. Twenty enlisted men and one officer had to be evacuated to hospitals in the rear; others who were not as seriously wounded were treated at aid stations.

The next morning, a full 30-per cent of the company was not available for duty but in spite of this handicap it continued to operate and that day the trucks delivered 41,000 gallons.

The next day deliveries were stepped-up to 60,000 gallons to maintain an uninterrupted supply of gasoline for the swarms of planes that were hamstringing von Rundstedt's supply lines in the Belgian Bulge and in the rear areas.

Another of our convoys, caught in a village in Eastern France during a strafing attack one moonlit night, came out with no casualties because the non-com in charge did some quick thinking. When the planes came over on the first pass to size-up the target, and then zoomed off, he ordered all the drivers to get their tankers onto the side streets where they would be camouflaged by the shadows of the houses. Jerry came back over the town, this time ready for action, but his machine-guns only hit the deserted cobble-stone main street. When things quieted down, the convoy pulled out to continue on its mission.

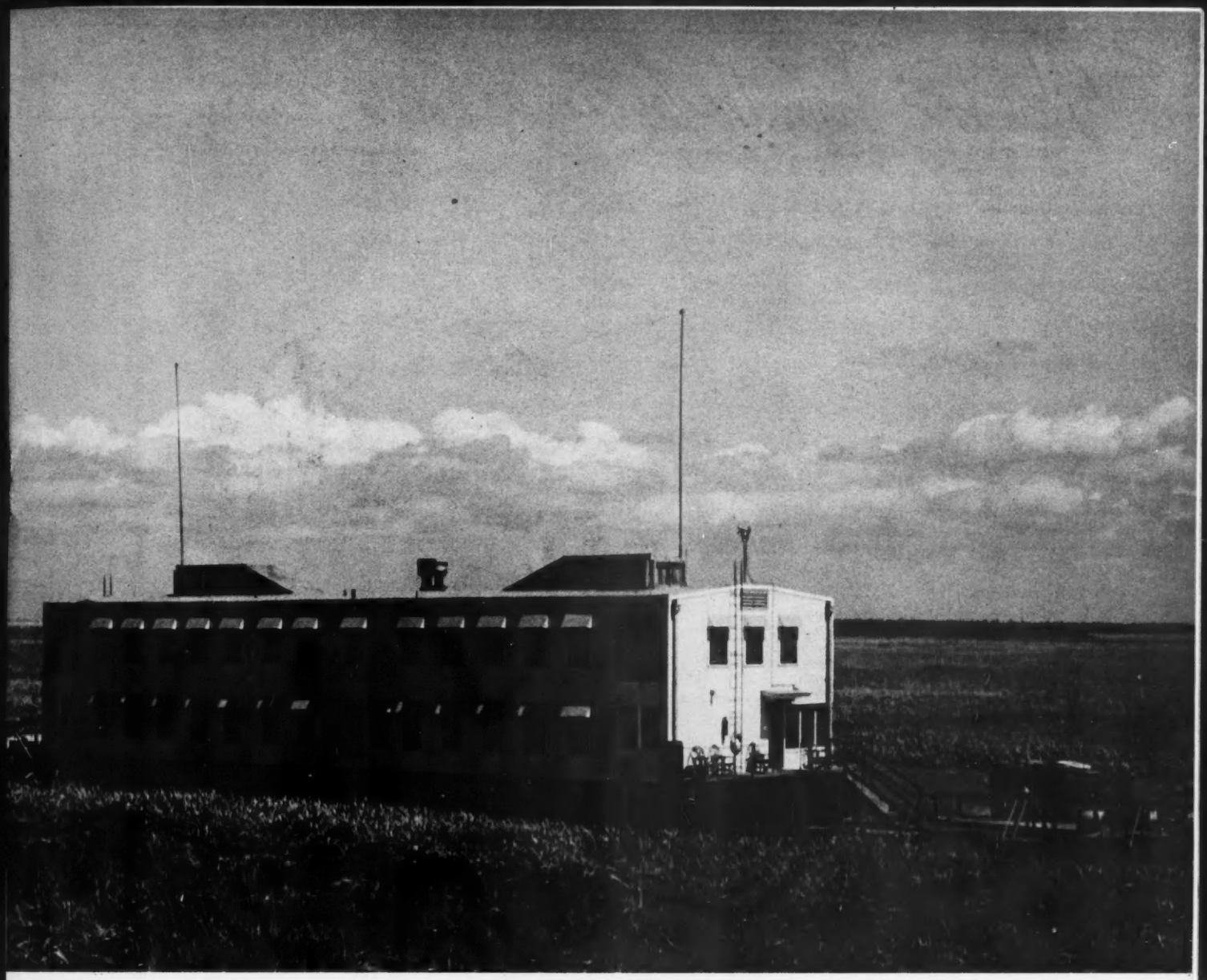
Encounters with the enemy like the ones mentioned didn't happen every day, but they did happen often enough to make POL hauling an extra-dangerous job. In spite of all this, not one of our convoys failed to deliver the goods, which is one good reason why the tactical air units supporting the armies were able to "shoot the works" at the Germans.

The POL equipment used by this Group includes the F-1, F-2 and F-3 units; the first is a double-trailed load of 8,000-gallon capacity. It moves on 30 tires which is one reason why the Army needs great quantities of rubber. The F-2s can carry a total of 4,000 gallons and the F-3s take a full load of 1,350-700 gallons in the truck and 650 in the trailer.

The progress of the war determined the expansion program for our delivery system and in spite of the speed with which the war front expanded, our distribution not only kept up with it but also piled up a big reserve of aviation gasoline at the bulk areas.

In the closing phases we operated in five countries, and even though we are a dyed-in-the-wool Texan we must admit that's a mighty big operation for a tanker fleet.

THE FIRST MONTH after D-Day all gasoline was hauled to forward airfields in jerricans. Then came the tanker trucks, the F-1 double tank trailer with a capacity of 8,000 gallons (center) and the F-3 with 700-gallon truck tank and 650-gallon trailer pictured at right.



HOME FOR A FULL DRILLING CREW, THE BIG HOUSEBOAT APPEARS TO BE BUILT ON LAND AS IT RIDES AT ANCHOR IN A NARROW CANAL DREDGED IN THE FLAT LOUISIANA MARSHES

BAYOU *Boardinghouse*

IF YOU can visualize a modern, small town hotel, lifted out of its urban environment by some superhuman force and plopped right in the middle of the most desolate and limitless swampland that your mind can conjure up, you are mentally prepared to accompany us on a tour of Humble Production department's largest new quarterboat for drilling crews in the Louisiana marsh country.

But instead of rushing you right out into the swamps, wouldn't you rather enjoy first the pleasant experience of getting to this boardinghouse on the bayou?

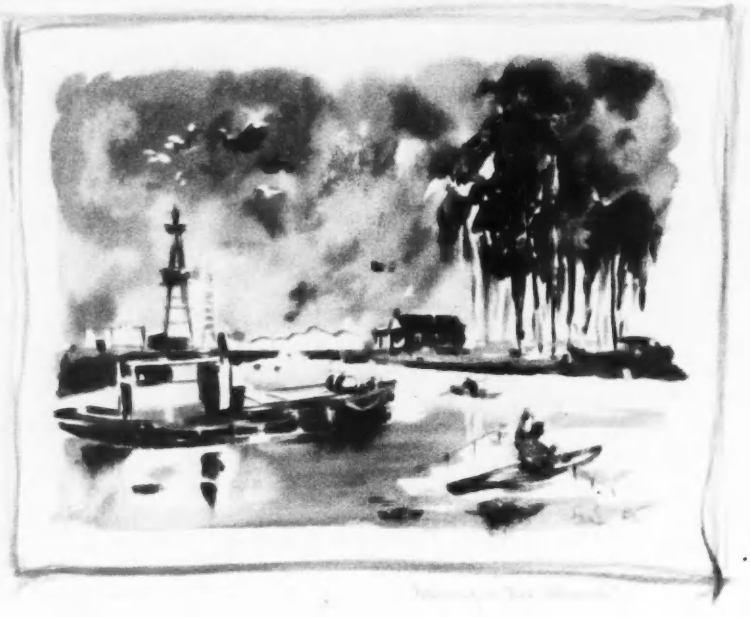
Down around Morgan City the highway begins to follow the bayous; mile after mile of winding road is adorned on one side by gaudily painted native cottages and proud ante-bellum mansions set back in groves of bearded oaks; on the other by meandering, lazy Bayou Teche, Bayou Black, or Bayou Lafourche. You revel in the grandeur of this enchanted land until you suddenly come upon the sleepy little fishing village of Des Allemands, some 30 miles west of New Orleans. Here, you have been told by the New Orleans district office,

[*Continued on page 16*]

Sketches from the Louisiana Delta Country

BY E. M. SCHIWETZ

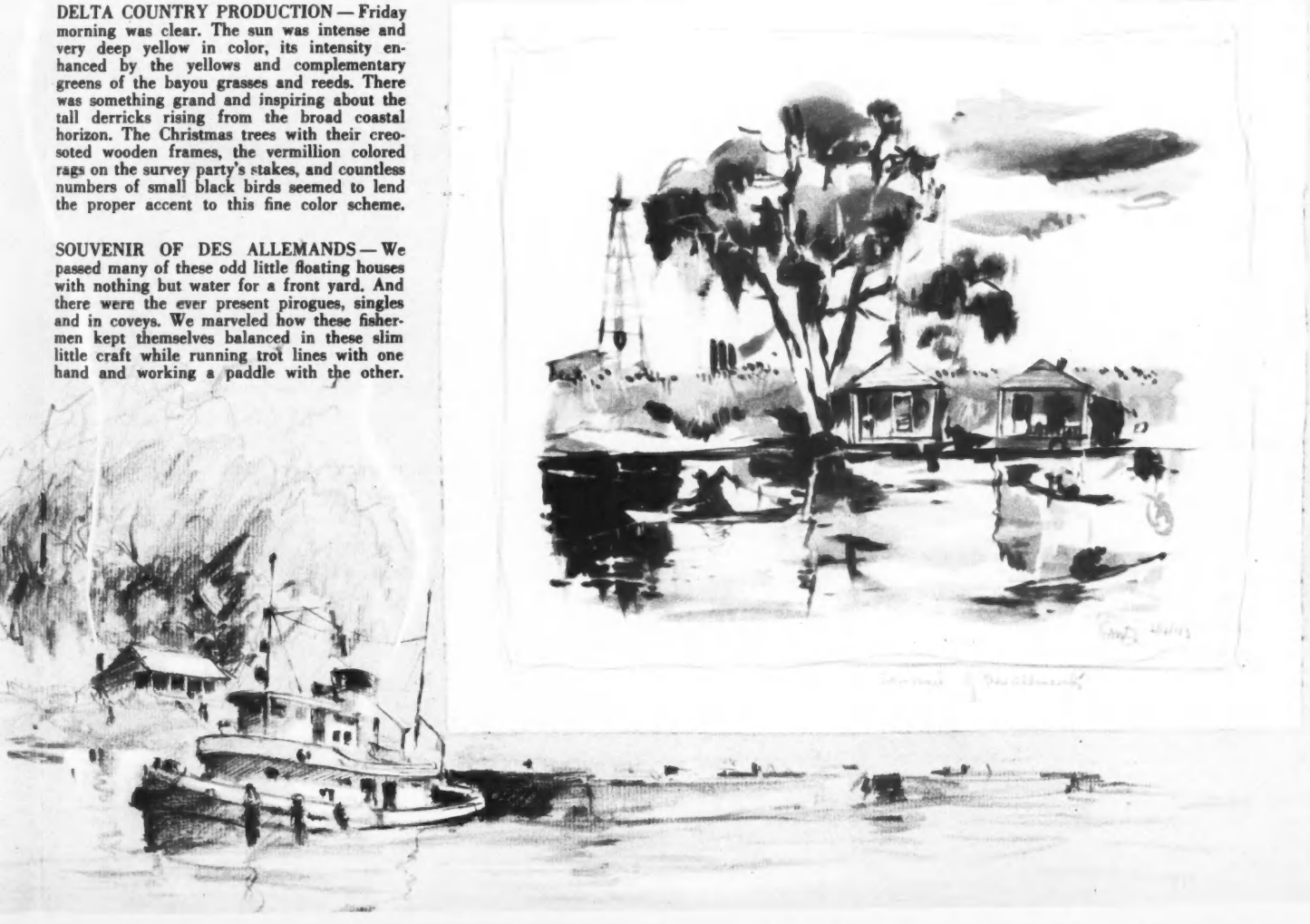
MORNING ON DES ALLEMANDS—To me this scene along the bayou typified the Gulf Coast country. The clouds were soggy, warm-gray, fast-moving, and apparently always plotting rain. Now and then the sun broke through to lay before you a fine palette of colors—the greens of scrubby trees, oaks and cypress, and water hyacinths against the gray skies; the ambers of the rotted woods; and an extra boost from a white shrimp boat and a silvery derrick.



DELTA COUNTRY EVENING—This was a pretty time of day in the marsh country. All was quiet except for the drone of generators on the power barge and the occasional clank of metal against metal. The air hung heavy with the dank smell of decayed wood and marine life. Strange to say, smells and sounds lend a big hand in the making of a picture.

DELTA COUNTRY PRODUCTION — Friday morning was clear. The sun was intense and very deep yellow in color, its intensity enhanced by the yellows and complementary greens of the bayou grasses and reeds. There was something grand and inspiring about the tall derricks rising from the broad coastal horizon. The Christmas trees with their creosoted wooden frames, the vermillion colored rags on the survey party's stakes, and countless numbers of small black birds seemed to lend the proper accent to this fine color scheme.

SOUVENIR OF DES ALLEMANDS — We passed many of these odd little floating houses with nothing but water for a front yard. And there were the ever present pirogues, singles and in coveys. We marveled how these fishermen kept themselves balanced in these slim little craft while running trot lines with one hand and working a paddle with the other.



CONVERSATION IS LIGHT in the main dining room as members of the crew "fall to" on a hearty meal of salad, roast beef, English peas, stewed corn, spinach, baked yams, rice, Creole gravy, Navy beans, corn bread, topped off with layer cake and strong Louisiana drip coffee.

[*Continued from page 14*]

a boat will be waiting at the water front to carry you out.

The faint, pink rays of the sun are just visible above the tree line when you meet the friendly pilot at the dock next morning. Seven o'clock is departure time, but, of course, you decide at the last minute you want to send a telegram and that means a hurried walk over to the little railroad station and a short wait until the station master can come in from the bayou where, like many other natives, he is fishing. Your affairs in order you board the speedy craft and start down Bayou des Allemands, not yet aware that ahead of you lies a one-hour-and-45-minute ride. It's approximately 35 miles out to the I. R. Price No. 4 in the Delta Farms field, where the Bayou Boardinghouse is headquarters for the group of employees with whom you are to visit.

The ride is invigorating. You stand on the aft section of the boat and let the cool morning air whip through your hair, fascinated by the *Cajun* fishermen who deftly maneuver their pirogues about the bayou checking lines.

Suddenly the bayou opens into a larger body of water, the shoreline of which is only a dim outline on the horizon. "Lake Salvador," the pilot answers your inquiring look, and then turns back to the task of navigating. And it is plain to see that he must keep his wits about him across this 12-mile body of water if he is to find the right outlet on the other side.

You become drowsy with the monotony of the scene and maybe you recline on the bunk to scan the *New Orleans Picayune* which he hands you, and before you know it you are napping . . .

The whining engine changes pitch and you jump up for a look around, realizing immediately that you have had more than a few winks.

Out across the flat, treeless sea of marsh grass bordering the narrow canal up which you are now cruising at medium speed you can see the tall, gaunt derrick, and behind it the house boat. The brilliant white of the latter stands out like a lone cloud in the sky. Anticipation grips you.

"Come right in . . . Here, let me help you with your bags."

That's L. L. Greene, electrical foreman, who gets you comfortably located in the guest room on the first floor, introduces you to some of the men, and then makes it plain to you that you have "the run of the house."

At first it all seems a little incredible. You roam around in amazement, your camera trigger finger itching. "There'll be time for pictures," you remind yourself. "See first how these folks live and work."

The faint clatter of pots and pans and the repeated appear-

ance of white aproned men out in the hall tells you that things are well under way in the galley, even though it is only a few minutes after 10 o'clock. (You've heard much about the wonderful meals on board, so you can scarcely wait until noon.)

Meanwhile you make several interesting discoveries: that of the three full crews living here, one is always at work, one at leisure, and one asleep; that machinery and storage take up the basement or hull of the boat; that the top floor is given over entirely to sleeping quarters and bath room; and that the first or main floor is where most of the actual living goes on. So, there is where you wander about.

Out on the screened service porch a quartet sits around a table in a heated domino game. In the recreation or living room a few loll about in comfortable chairs, one is reading, another twists the dial in search of a pleasing radio program. From time to time men come down the steps slowly . . . clean shaven, refreshed after a good sleep. Invariably they make a straight line for the service window between the galley and the dining room and reach through for a "spot" of the strong, black drip coffee which the chef keeps on the hot plate at all times.

While you sit and chat in the office with driller W. D. Tatum and hear his report on the well by short wave radio to the New Orleans district office, the rattle of dishes and silverware draws you unmistakably to the galley. The chef is ladling steaming vegetables into large aluminum containers, and meat and gravy, and whatever else makes up the meal. You wonder if they don't have platters and bowls, and then you catch on. This meal is being prepared for the men on the rig so they won't need to come down off the derrick floor, through the power barge, and into the houseboat to eat. Plates, silver, salt and pepper, and whatever else may be needed, are packed neatly into a deep wooden tray and hoisted on the shoulder of a member of the galley crew to be carried quickly over to the derrick. Here the hot food is spread on a table and every man helps himself.

Back in the houseboat dining room, conversation, which was plentiful and loud earlier, dies down abruptly as the hardy men "fall to" on a meal of lettuce and sliced tomatoes, roast beef, English peas, stewed corn, spinach, baked yams, rice, Creole gravy, Navy beans and hot corn bread. To top it off there is layer cake with thick pink icing and, of course, a satisfying cup of drip coffee.

Your early afternoon plans call for a thorough investigation of the basement, or hull, to see the machinery, to see what makes this floating hotel "tick." But after such a meal the incessant beckoning of your comfortable bed will not be stilled, and the flesh wins over the spirit.

At 2:30 the sun is shining brilliantly on the whole scene. In the recreation room you find the men reading, playing cards, talking. Probably each has had a cup of coffee by now, and so you go over and have one, too. On your way back to

A HOT NOON MEAL on the derrick floor is thoroughly enjoyed by the 6:30 a.m. to 2:30 p.m. crew. The large quantities of milk, meat, eggs, fresh fruits and vegetables and staples required to feed members of the houseboat family come out by boat, are unloaded by galley crew members and stored in the refrigerated vault and on shelves in the basement.

EMPLOYEES RELAX on comfortable furniture in the recreation room. They read, talk, play, listen to the radio . . . and help themselves to coffee simply by reaching through the service window into the galley.

the recreation room you do like they do—help yourself to an apple, a pear, a banana, or a handful of grapes from the big bowls of fresh fruit always present on a side table.

Two men come hurrying down the stairs carrying suitcases. They, too, reach for some fresh fruit, shout "So long" over their shoulder, and hop on the boat at the landing. They are *going in* for a respite and a visit with their families, their 48-hour week completed. They'll return day after tomorrow morning to begin work again.

A tall, husky man (a derrick man you learn) saunters by the galley to wangle a small piece of fresh liver from the chef. Yes, he's going fishing. Right off the back landing. An hour later you find he has landed six or seven nice catfish.

And so, while activities are more or less routine you amble down the floating walk to the power barge, on through the storage barge, and up to the derrick floor, where the crew is busy with final preparations. Casing has been set; the afternoon crew is making final equipment assembly; and if all goes according to schedule, the night crew will start the bit turning again on its 10,000-foot journey to pay sand.

From a side window on the derrick floor you survey the endless flat scene. Around the bend in the canal a mile or so away you see a trim speedboat knifing through the dark water. The crew boat which left des Allemands at 2:30. You hurry over to the landing to see who and what is aboard. To your surprise it ties up at the back of the houseboat instead of at the regular landing. Now what?

Supplies! Meat, eggs, milk, fresh fruits and vegetables, canned and packaged goods, potatoes, onions . . .

Three members of the galley crew and the pilot unload it quickly. Down into the basement it goes . . . into the 10 by 12 foot cork insulated cold storage vault and on the shelves for canned goods and staples. Halves of beef, crates of eggs, wire containers full of bottled milk . . . many more good meals for the days ahead.

While you are down in the hull you make the rounds, guided by a member of the crew. Here's the refrigeration compressor for the ice maker and storage vault. Over on the other side are two diesel generators for power and a steam boiler for heat, a 300-gallon hot water tank, and storage tanks for fresh water and diesel fuel. Through an opening in the bulkhead you can see sewage tanks and a chlorinating system . . . the houseboat is a self-sufficient unit, carrying its own light and power plant, water, fuel, and refrigeration. It can tie up anywhere and be independent.

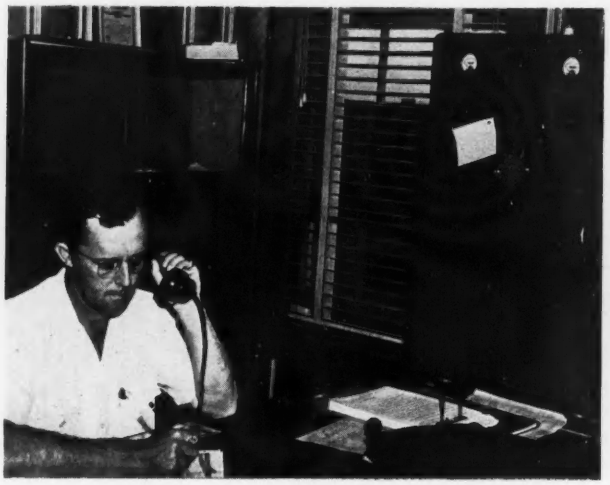
Back upstairs you see the chef standing in the galley door enjoying a smoke. Must have supper well in hand, so you decide to ask him a few questions.

"Rationing? Sure it gives us problems . . . especially on meat," he says. "Men who work like these fellows want meat, lots of meat . . . and we manage for a reasonably good supply and variety." Lack of bacon and ham for breakfast, he explains, poses the major problem. "We've given them sausage until we are a little tired of frying it," he grins, but he is quick to add that little or no "beefing" is heard from the men.

Between canned and fresh vegetables and fruits he finds it possible to keep the menu full and varied enough to stave off monotony, he believes, but you can't help thinking that his is a job not to be envied. Systematic menu planning, far enough in advance to permit palatable substitutions in the event of shortages, is his answer. And you decide the answer is a wonderful one as you catch the aromas coming from the bright aluminum pots on the diesel galley range. For fear that your camera trigger finger may wander to that huge pan of savory looking, brown hamburger steaks for a test and be rewarded with a blister, you take leave.

Where to now?

You haven't seen much of the upstairs, and there's time before supper. As you mount the stairs you see a huge ventilating fan overhead, and you find out later that there are five of these on the houseboat to assure the men cool comfort during the hot months. You amble through the five large bedrooms, each with five or six beds. Sleepy-eyed men are making ready to come down for supper. A few are shaving in the large tiled bathroom. Not bad, you figure. Plenty of hot water, four wash basins, big mirrors, several showers—everything the men would have at home.



RADIO-TELEPHONE facilities keep the houseboat in contact with the New Orleans and Houston offices at all times. Feeding the crew keeps the chef (extreme left) and his staff of three assistants busy all day.

Supper is much like dinner. In addition to the full meal there are plenty of jellies and jams on the table, a wide variety of condiments to season the food—everything to please a range of tastes and likes.

The early evening hours are a repetition of the afternoon hours. The men read, relax, play, or go to bed. The chef and his aides rub and scrub the galley spotlessly clean and call it a day. But the result of their work is short-lived.

Around 10 o'clock the driller and his crew going on duty in half an hour assemble in the galley for a snack. Maybe a sandwich, a bowl of cereal, a glass of fruit juice—whatever is needed to fill in until breakfast. The crew coming off at 10:30 repeats the performance before going to bed.

By 11 o'clock you "turn in" like everyone else. Sleep comes with uncommon suddenness, but sometime during the night you are awakened by the chugging of a tugboat and the grating, scraping sound of a barge or boat being warped alongside. Slumber is too pleasant to spread open the Venetian blind and have a look. Tomorrow will be time enough to learn.

Breakfast is a little early for your city habits—6 o'clock to take care of the crew going to work at 6:30 and also the crew coming off at that time. By selling yourself on the idea of joining the second group you have time to step out and fill your lungs with the pungent marsh air of early morning; to see the derrick and power barge silhouetted against the faintly lighted sky; to find that the disturbance during the night was caused by a tug bringing in a barge load of fresh water for drinking, cooking, and bathing.

Breakfast measures up to all other meals. Fresh fruit, cereal, sausage, eggs to suit your mood, grits, toast, and plenty of marmalades and preserves. Coffee, of course, and now that you are better adjusted to its taste and color you linger for a second cup and maybe a third with your cigarette.

But you are about to forget that 7 o'clock is boat time, so you hurry to pack your things, say "farewell" to as many of the fellows as you can find, give the chef and his crew an extra kindly handshake, and jump on the boat.

Looking back as it speeds away, you have time to drink in the scene. You also have time to turn over in your mind some of the facts you picked up from the civil engineering folks in Houston before you came out, and some of the figures the men on board gave you about their living costs.

You can scarcely realize when you gaze across the marsh for a last look at the houseboat that it is 28 by 100 feet of structure on a 30 by 110 foot barge. Even when its size begins to balance up in your mind you find it difficult to reconcile the fact that so much comfort and so many conveniences can be crammed into the space. You remember it was "a-building" at Barbour's Cut, near LaPorte, from June until October, 1943, and that the painters were still aboard when the craft was towed to Morgan City, Louisiana, to be turned over to the Louisiana Division for provisioning with linens, dishes, silverware, and other essential equipment.

You recall that the fellows on board told you they pay 33-1/3 cents per meal, or a maximum of a dollar a day, and 10 cents a day for their bed. A maximum of $33.00 a month, and it's seldom that much because they do not pay for meals missed while they're away.

Your mind goes back to scenes of the day before: the enthusiasm of the men *going in* to see their families; the obvious strain of work, eat, sleep in the same little isolated world of the houseboat and rig; and the words of one of the drillers: "Well, you know, no man especially likes working away from his home and family, but if conditions call for it, I can't think of a better place in the world than right here."

Rolling along the highway, homeward bound, you miss some of the scenery this time. You can't help ruminating on your experiences of the past 48 hours, and the more you think about them the more certainly you come back to this one conclusion: The best is none too good for those employees out there. You cannot help but feel proud of the engineers who designed so well and planned so carefully every detail of the Bayou Boardinghouse; and you conclude that its comforts are well deserved by employees who work so far out in the desolate swamps to find the oil which today helps oil the machines of war and tomorrow will make an important contribution to our economic progress and national security.

Lifeline

NO SIMPLE ROAD to build or to drive over is the new Ledo Road. That is obvious from this aerial picture showing tortuous hair-pin curves as the road winds out of the valley and over the mountains.

TO CHINA

Men and machinery accomplish the near impossible in carving new supply road and pipeline through Burma mountains

TWO YEARS and three months of combat and construction have peopled the India-to-China route with ghosts—and a truck road which the men who built it call simply *the* road.

The ghosts are hundreds of miles of combat trace hewn out of the Assam and north Burma jungle to supply the mortarmen and riflemen of General Stillwell's command. Abandoned again to the jungle as the fighting moved forward, these rutted jeep and pack-mule trails are marked now only by the graves of those who died beside them.

The ghosts are "relocated" sections of the original truck and bulldozer route. Sight-surveyed in the days when nothing mattered except to get dozers and supplies forward where Army engineers could attack the tough spots, *the* road has been resurveyed, relocated, rebuilt, and remaintained so often now that few people can remember the original dozer trace.

The ghosts are stream-crossing sites, hundreds upon hundreds of them—low-water fords, abandoned bridge sites, crossings where men, horses, and equipment piled across before the next monsoon. Sections of cable, wreckage of timber, bent portions of planking, parts of pontoon barges, dot the valleys deep into the northern hills of Burma from the places where American and Chinese engineers fought their way across. The well-anchored, steel-truss bridges which now carry *the* truck road over these streams inherit the experiences of one temporary crossing after another. Each bridge can say, "I am but the latest."

The ghosts are construction camp sites, built first as crude hospitals or tent camps for staging the combat forces pushing down the Hukawng Valley, then used as workshops for the road construction machinery, then as servicing stops for the supply trucks. Clearing, camp, hospital, garage for wrecks, or supply depot, each phase marked a chapter in the progress of *the* road.

The ghosts are the skeletons of machinery. Begin with what's left of the trucks abandoned in the summer of 1942, when the American handfull of troops retreated with General Stillwell along this route. Chasses lie half-buried in the sand wash along a river bank. Add to them the exhausted tractors, the cracked-up liaison planes—the one-hoss shays who gave their lives to the building and the rebuilding of the roads

THE INITIAL CONVOY to break the land blockade to China detours around a new causeway along the Ledo Road as the trucks move on toward Kunming, China, from the starting point at Ledo, Assam, India. Stacks of pipe on both sides of the road have been laid in the ground since this picture was made to form the oil pipe line which follows the road all the way and delivers victory's oil into China.

CHINESE INFANTRYMEN, who helped drive the Japanese from the jungles of northern Burma to clear the way for the Ledo Road, watch the trucks of the first China-bound convoy on the way to the border.

OLD AND NEW share the job of building the road. A survey party on elephants passes one of the string of giant bulldozers employed in the construction of the road. The problem of supplying oil, gasoline, and lubricants for the machines needed on the road was no small one itself. Now that the pipe line which parallels the road is completed, petroleum products are being delivered quickly and in quantity to Allied and Chinese forces.

that are now the truck route. A D-8 tractor bulldozer comes off a railroad flat car at Ledo. Its objective might be the head of the road 175 miles to the southeast. But it works its way down that 175 miles, relocating here, making a sidehill cut there, adding its own mark to each mile of road it covers. No one can anticipate the spare parts it will need at the end of that 175 miles. When parts are unavailable, bulldozers eat bulldozers, cannibalizing them for working parts. *The* road cannot wait.

The ghosts are memories of the records set and then broken, the unbelievables like pushing the roadhead forward 54 miles in 57 days to keep the combat forces supplied in the Hukawng Valley drive; like building a pile-supported wooden causeway one and eight-tenths miles long and 9 feet high in spots, building it out of a million board feet of timber cut on the spot, just to lift *the* road above one overflow stretch; like moving three-quarters of a million cubic yards of rock and earth to cut one mile off *the* road; like flying in a complete set of heavy earth-moving equipment for one Engineer battalion to finish an air strip at Myitkyina; like the bridge across the Irawaddy, or rather, the bridges. The first one the Engineers threw across was 1200 feet, the longest pontoon bridge the Army had ever built up to that time. The new one, made in the United States of a special design, is a barge-supported bridge whose deck will rise and fall with the river itself. Counterweights hung on steel cables strung over towers on either bank will hold the barges in line though the height of the river should vary as much as 50 feet.

The ghosts are the mislaid hopes of Japan's Asiatic strategy.

The two hundred-odd miles of the graveled truck road reaching from Ledo into Mogaung make a "road back" in a grimmer sense even than Gen. Stillwell could have foreseen. The first truck convoy through Mogaung, through Myitkyina, through Lungling, and on toward Kunming on the old Burma Road is a ground swell of the 1945 storm of retribution due to fall on Japan in Asia. For joined to the old, and now improved, Burma Road from the Chinese border to Kunming, *the* road has ruined Japan's hope of isolating China from her western allies. Japan's desperate efforts to seal off the China coast from a seaborne invasion have come to naught. A stream of 6 x 6 heavy cargo trucks, rather than a convoys of LSTs, now menaces the Jap holdings in China. The Japs are being invaded by land.

The ghosts are those who died flying the Hump until the sweating Engineers could hole *the* road and a pipeline through. For two years, the only gasoline, bombs, medical supplies, and small-caliber ammunition reaching China had to be lifted twenty thousand feet over the ridges separating China from India. Such air transport was about as economical as a man trying to jump a six-foot hurdle with the packages he could carry while making the jump. But the planes made it, ten thousand tons a month, twenty thousand tons a month, thirty thousand tons a month—highest priority items, just as the planes carried the highest priority technicians. No one went into China who couldn't pay his way with work, because each American soldier on the other side of the Hump had to

be maintained and each soldier's maintenance cut into the hand-counted tons. Each gallon of aviation gas in China was worth four in India, ten in the United States. But the Hump flights kept China alive, kept the Fourteenth Air Force's planes supporting the Chinese foot troops.

The ghosts are the fears that our war in the Pacific would be a stalemate, that we could never hope to bring our strength to bear effectively on such a distant and so well-protected an enemy, that workers in America would build trucks and bull-dozers and field artillery pieces and heavy shells which could never reach an area where they would fulfill their mission of killing Japs. These ghosts, once tangible, may now find the Stilwell route a bit too crowded for them to stick around even as spirits. The machinery for killing Japs is getting to some eager and soon-to-be-satisfied customers. *The* road is open.

Speaking on the radio about the time the road was nearing completion, General Joseph W. Stilwell said: " You who have members of your family over there on the Road have no doubt wondered how the American soldiers were able to stand up to the hardships which were found at every turn. They had a job to do and they stuck to it. The tougher the job—the tougher the men became. It was a matter of cutting the pattern to fit the cloth. The Combat Engineers kept up with the combat troops all the way, working 24 hours a day in spite of tough going . . . There is no individual star on the team; every branch of the armed services is contributing to the final score. The Troop Carrier Squadrons flew supplies to the forward area regardless of weather conditions; the Medics cared for wounded and sick of all troops; the Quarter-master truck outfits pushed trucks through while the Bomber and Fighter squadrons of the Tenth Air Force kept the sky clear of Japs.

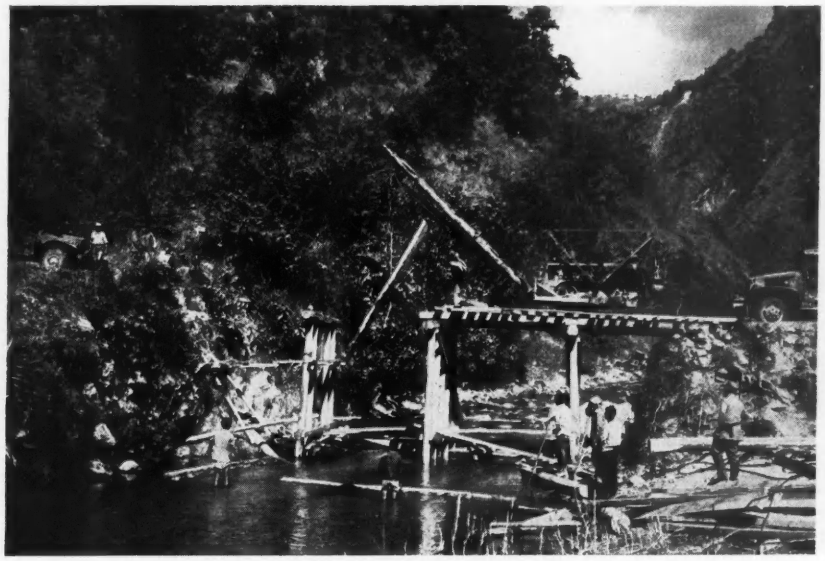
"The rescue squads and pilots of the small liaison planes did a job few men will ever forget. The Chinese soldier proved to the world that given proper equipment, training, and leadership he can hold his own with any troops in the world. The American infantry combat teams marched hundreds of miles through the stinking jungles and outfought the Japs every time they met them. They carried the fight to the enemy in spite of aching muscles, sore feet, and endless trials. They had a job to do and they wouldn't give up."

Two years of combat and construction, two years of build-ing *the* road over the scars and ruts of hundreds of temporary trails, two years of assault through two hundred miles of natural hill-and-jungle fortifications, two years to cut that air-lift high-jump of twenty thousand feet down to ground-level, means to the road Engineers, to the people of China, and to the people of America, that *the* road to full-scale action in Asia is completed.

The dike is broken. The flood of American combat power is beginning to pour through. *Now*, American trucks and dozers and heavy artillery are free and ready to *fight*.

Capt. L. C. McGilvray, southern division Humble Pipe Line Company, who recently returned from the China-Burma-India theatre, spoke knowingly of the new Ledo road. As a tank gunnery instructor working with Chinese troops in India he learned intimately of China's supply problems in her struggle against Japan; as a volunteer serving for 40 days with Merrill's Marauders he had a part in clearing Japs out of much of the area through which the road was built. Before leaving the CBI theatre several months ago he met up with fellow HPL employee Lt. F. M. Cabell, who had a big hand in the construction of the vital pipe line which follows the new road.

In the service since October, 1940, Capt. McGilvray served in North Africa before being transferred to CBI. He wears the unit citation bar and two major campaign stars, North and Central Burma, and at present is stationed at Wm. Beaumont General Hospital, El Paso.



WINDING THROUGH the rugged mountains and deep gorges of Burma, the Tengchung cut-off was rushed to completion as quickly as possible. Bridges had to be rebuilt time after time when the monsoon swept away the labors of Burma Road engineers and Chinese laborers. The combination of modern and crude equipment employed on the road indicates the ingenuity required to push construction forward even though supplies and equipment often failed to come through.

IN THE SERVICE

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SINCE V-E Day and the brightening prospects of the return of at least some of the more than 3000 Humble employees in service, their comings and goings are of greater interest to employees at home than ever and the pleasure of reporting on them increases proportionately.

CPL. WILLIAM H. KENNEDY

Into the HUMBLE WAY office recently walked *Chief Yeoman W. E. Cowan*, trim Navy intelligencer to tell of considerable time spent in Arabia and of subsequent world travels. Wearer of the European-African and Asiatic-Pacific ribbons, Chief Cowan was in the Law department before donning the Navy blue in April, 1942 . . . A few days later *Bert Cunningham*, AM 2/c, dropped in and recounted experiences as a member of a dive bomber squadron in the Pacific. In the Gretta district, Production, before going into service in March, 1941, Cunningham is back home to attend advanced metalsmith school . . . And then to hand an interesting Coast Guard release about Conroe truck salesman *Turman S. Kimbro* and the part he played in the Iwo Jima invasion as deck officer on a CG manned tank landing ship which ferried Marines and supplies to the beachhead . . . From Longview a news item to the effect that *Cpl. William H. Kennedy*, HPL dispatcher in the Longview office for 13 years before entering the Army in January, 1944, has had a part in distributing oil and gasoline all over France . . . And speaking of petroleum distribution, a dispatch from the Italian theatre tells of the recent promotion of *Lewis A. Feagan* to rank of Captain. He was a district

SIX HUMBLE EMPLOYEES get together for a picture somewhere in the Marianas. Seated, left to right: Major P. D. Phillips, Engineering department, West Texas division, HPL; W. E. Curry, BM 1/c, West Texas drilling; W. L. Evans, CBM, Harbor Island HPL. Standing, left to right: H. E. Thompson, CBM, East Texas drilling; V. B. Dickerson, MM 1/c, Baytown refinery; and W. E. Burch, SF 1/c, Baytown refinery.

CHIEF YOEMAN W. E. COWAN

BERT CUNNINGHAM, AM 2/c

ENS. TURMAN S. KIMBRO

gauger for HPL at Odessa until November, 1942, and on the Italian front was commanding officer of an Italian Engineering petroleum company supplying 100-octane to 15th Air Force fields . . . From the other side of the world a picture of six Humble employees in the Marianas . . . sent in by *Major P. D. Phillips*, HPL West Texas division engineering department . . . From Italy again, a stirring account of the accomplishments of *Lt. Joe B. Cassel*, who was in General Accounts, Houston Office, until March, 1942. As pilot of a B-17, he had the frightening experience of bringing in the huge plane on two motors . . . and repeating an almost identical performance the very next day . . . Still another Houston Office employee piloting a bomber in the same theatre is *Lt. John M. Ford*, 12th Air Force public relations reports. Formerly in Production Accounting, Lt. Ford had piloted a B-25 on 59 missions when V-E Day came and had won the Air Medal with five Oak Leaf clusters, two battle stars, and the Distinguished Unit badge. . . . Coast Guard public relations reports the meeting of two old Humble friends aboard a Coast Guard-manned troop transport in European waters recently. They are *Elbart E. Dodson*, chief electrician's mate who went into the service from Wink Production in July of 1942, and *Wilson Hayes*, machinist's mate first class, who left from the Southwest Texas division office, Production department, the same month.

The Telephone and Telegraph department, Houston, is the source of information about the fighting dozen from that department—employees who have seen action on most of the battle fronts of the world.

Captain Albert P. Sommers, chief clerk in the general offices, Houston, until December, 1941, wears both the Bronze Star and the Silver Star for meritorious conduct and gallantry in action in France. Serving with a communications organization, he was under fire many times and is the wearer of the Purple Heart . . . In service since November, 1942, *Lt. A. E. Jones*, wire chief, Houston, has had several harrow-

Capt. Craig Campbell Returns After 22 Months as Prisoner

CAPT. CRAIG CAMPBELL

AIDE-DE-CAMP TO GENERAL EISENHOWER CAPTURED IN NORTH AFRICA CAMPAIGN

Captain Craig Campbell, aide-de-camp to General Dwight Eisenhower, recently returned home after spending 22 months in prisoner of war camps in Europe. He was captured at El Guittar, North Africa, was sent first to Capua, Italy, and later to Bavaria and several camps in Poland. When early this year he and other American officers were liberated by the Russians, Capt. Campbell visited for several days with General Eisenhower in France and then returned to the states.

General Eisenhower wrote to Capt. Campbell's family in Austin on April 12, 1943, that Craig was missing, but expressed the belief that he had been taken prisoner. That belief was confirmed officially on April 30.

Capt. Campbell was a statistical clerk in the Economics and Statistics division, Houston Office, when he entered the service on June 27, 1941. General Eisenhower, then a Colonel at Army headquarters in San Antonio, was impressed with Sergeant Campbell's work and recommended him for special schooling. When the General went overseas he requested Campbell as his personal aide.

Capt. Campbell was married to Miss Frances Brunson at Baytown on May 16.

CHIEF ELECTRICIAN'S MATE Elbert E. Dodson, Wink Production, and Machinist's Mate First Class Wilson Hayes, Southwest Texas division office, meet aboard a Coast Guard manned troop transport in European waters, and talk about old times with the Humble Company.

SEVEN OF THE twelve members of the Telephone and Telegraph department who are in service. Right, top to bottom: Ens. Clifton D. Campbell, Capt. Albert P. Sommers and Sgt. Johnson T. Smith. Left, top to bottom: Capt. Isidore Brown, Lt. A. E. Jones, and Warrant Officer C. A. Stephenson. Below is Major James E. Barbee.

ing experiences: the ship on which he crossed was torpedoed; he contracted tropical fever in Africa; and after recovery was wounded in action in Italy. Has completely recovered since . . . Still another chief clerk in the department until January, 1944, is *Ensign Clifton D. Campbell.* On submarine patrol duty in the Atlantic, his activities, naturally, are somewhat secret, but his letters indicate devotion to the submarine service. . . . Stationed in the New Hebrides Islands with a Seabee outfit is *Chief Warrant Officer C. A. Stephenson.* He was line construction foreman working out of Houston before enlisting in March, 1943 . . . The *Herring* brothers, John, MM 2/c, and Sgt. William, both linemen in the Ingleside area before enlisting, are now at different ends of the world. John is aboard a hospital ship in the Pacific; William is with the Army engineers in Iraan . . . And then there is *S/Sgt. Tom Smith* who served with Army engineers in England and France and who is now stationed in California. Sgt. Smith was a lineman in the Longview area until December 3, 1941 . . . *Capt. Isidore Brown,* stationed at Peterson Field, Colorado, was an inspector engaged in T & T equipment maintenance work at Ingleside before going to OCS at Miami Beach in July, 1924 . . . In a physical training unit with the Army Air Corps is *Sgt. Johnson T. Smith,* timekeeper and assistant to the T & T line construction foreman working out of the Houston office before donning the uniform in October, 1942 . . . Two others of the T & T department are now Majors and are stationed in Texas. First is *Major James E. Barbee,* who is with the Corps of Engineers at Camp Bowie and is detailed to duty with the Signal Corps. An electrical engineer with the department before entering service in February, 1941, Major Barbee was stationed at Camp Wolters and Ft. Sam Houston before being transferred to his present assignment. The second is *Major E. A. Stobart.* As a member of the Reserve he was called to active duty in May, 1941, from his post with the Company as electrical engineer in the Southwest Texas area. He is now with the procurement division of the Signal Corps for the Eighth Service Command in Dallas.

Serving Employees

EVEN though their activities were curtailed considerably because of war and wartime conditions and restrictions, Humble Employees Federal Credit Unions in 1944 continued to be the port in the storm for more than fifteen hundred employees who needed financial aid for provident purposes.

This was shown on the summarization report of Credit Union activities in the Humble organization during the past year. At the close of the year the eight groups had made 23,682 loans totaling $4,063,329.47 since organization, with 1,552 of these, totaling $355,800, made during the past year.

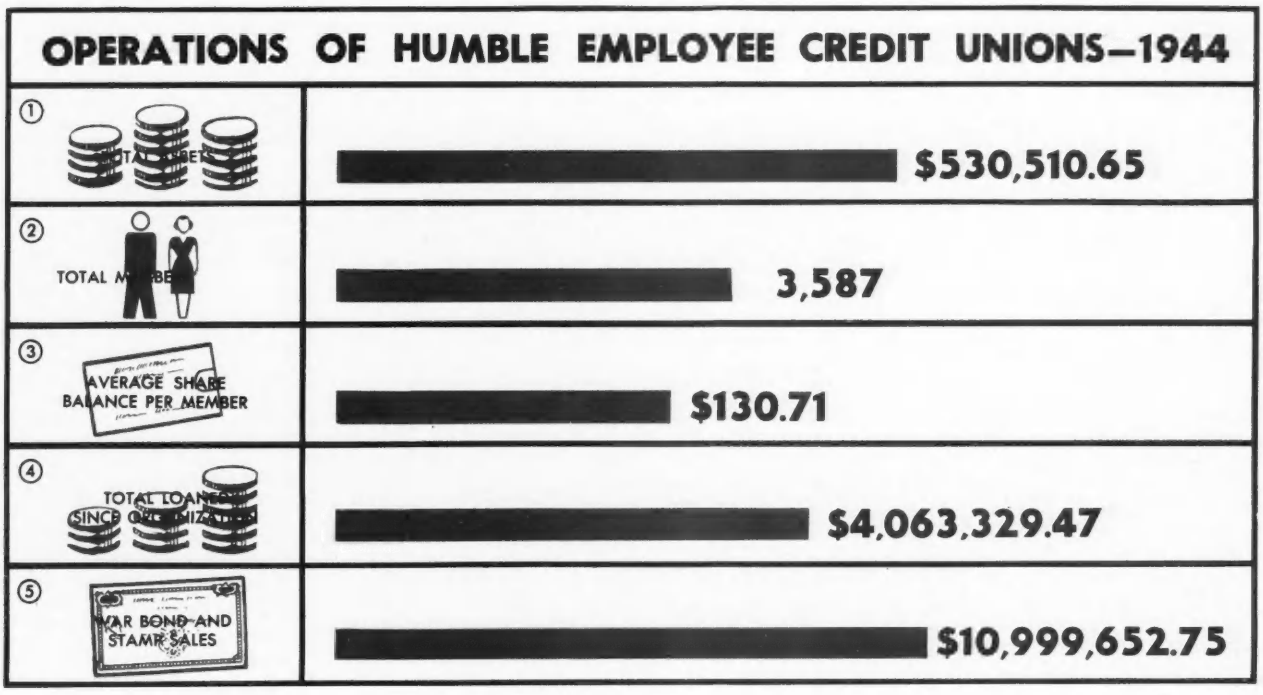
Not only did the Credit Unions help many an employee through periods of financial stress, but they added another good mark to their record by sending to the United States Treasury $5,793,074.75 for sale of War Bonds and Stamps to Humble employees during the past year. This was more than 25 per cent above the sales of Bonds and Stamps during 1943. To December 31, 1944, the Credit Unions had sold $10,999,652,074.75 in Bonds and Stamps.

All Credit Unions with the exception of the Pampa group are qualified as sales agencies for Series E Bonds and stamps, and during 1944 each Credit Union was particularly active in this respect, as the figures show. The Houston office Credit Union shows a larger balance, as all payroll deduction bonds are purchased through this organization. Reason for this is to expedite such transactions through one central office.

Too, the shift of Credit Union current assets to government securities from outstanding loans to members, which was begun in 1942 because of war conditions and government restrictions, was continued during 1944. A total of 55 per cent of the assets of the eight organizations on December 31, 1944—$297,183.35—were invested in government bonds.

Total assets for the eight Credit Unions, which reached $530,510.65 by the end of 1944, showed an increase of $20,894 over the $509,526.36 total assets for the year 1943. Figures show that the 3,587 members during 1944 had a total savings of $468,865.26—an increase of $19,947.62 over the $448,917.64 in total savings for 1943. Also the average share balance per member rose from $116.48 to $130.71. The report shows that in the Houston office, the average share balance per member for 1944 was $174.67; in Baytown, $86.59; in Longview, $117.16; in Houston Sales, $62.08; in Pampa, $19.04; in London, $39.64; in Gladewater, $160.06; in Wink, $113.35.

In fact, the year 1944 saw the eight employee groups operating efficiently and effectively, bonded together for cooperative saving and relief of financial difficulties, and continuing to serve their memberships in spite of necessarily curtailed wartime operations.



Ideas Bring $6900 in Cash

DEVICES and ideas which they developed to save labor, reduce cost of operations, or insure greater safety in their work brought 206 cash prizes totaling $6900 to employees of Humble Oil & Refining Company and Humble Pipe Line Company when the Central Committee recently presented Coin-Your-Ideas awards for the first quarter of 1945.

Total awards represent prizes given for 189 ideas which are helping to streamline Company operations in all departments. Two hundred initial awards were made for 183 of the ideas submitted to the Committee during the first three months of 1945. Four ideas were eligible for supplemental awards, which are substantial cash payments made in addition to the initial award after the ideas have been tested through actual general use over a period of several months and found to be of greater value than originally scored.

Two ideas were judged eligible for grand capital awards. These awards are given in addition to initial and supplemental awards when an idea or device is judged from its actual application or use over a period of not less than one year and not more than two to be of outstanding value, and also to be the most meritorious suggestion submitted during the same period of time from its respective department.

Patrick J. McMurrough of Baytown refinery was presented the $500 capital award for the Refining department, and Agnes A. McCabe of the Land, Records & Rentals department was presented a $200 capital award for the Houston office and miscellaneous group.

Supplemental awards totaled $375, with three of the awards going to Refining department employees and one to a Production department man. The Refining department men were as follows: Joseph M. Smith, $100; Junius P. Boudloche, $100; Miledge F. Miles, $150. Robert W. Grant, Production department man, was awarded $25.

Initial awards were made as follows:

REFINING DEPARTMENT

Baytown Refinery

Hampton L. Herbert, $120
I. B. Wunsch, $35
W. F. Mercer, $100
Calvin Johns, $25
E. H. Harbers, $50
Jack L. Holt, $5
Wm. H. Fletcher, $25
Thos. Small Reed, Jr., $35
Loys Franklin Beaird, $5
James Perry Wood, $100
Charles Barnhill, $40
Paul B. Land, $25
Wm. E. Sloan, $50
Joseph Edward Matthews, $15
Wm. Arthur Mix, $75
Lawrence Daniel Meckel, $100
C. L. Boullion, $125
J. T. Hopper, $5
Ralph S. Davis, $10
Louis V. Hickman, $70
Lynn E. Rowe, $25
W. W. Hunt, $130
Roy M. Pickering, $15
Joe J. Nunan, $200
Wesley B. Patterson, $85
Lee S. Thomas, $30
M. F. Miles, $100
Junius P. Boudloche, $50
Fred C. Canant, $100
William Miller, $50
Marvin D. Harrison, $15
Gordon A. Satterwhite, $50
Henry C. Williams, $5
Vesonne Devereaux, $5
Howard E. Minter, $10
Colon B. Petteway, $5
Ed J. Arceneaux, $10
Canales Stanger, $50
A. G. Boughton, $50
Robert W. Presnal, Jr., $25
Ralph E. Weikel, $5
James D. Huey, $10
Clarence F. Griffin, Jr., $10
Wm. L. Brough, $35
Lacy Lusk, $50
Ralph W. Skains, $20
R. H. Haferkamp, $10
Terrance W. Wilks, $10
Marion E. Smith, $75
Wm. R. Palmer, $10
A. Sims, $10
Ralph C. Partin, $15
Clayton Brooks, $15
Harley E. Cupp, $20
Paul H. Mears, $15
Geo. R. Berry, $20
G. W. Jones, $5
W. J. Frazier, $5
John E. Smith, $5
Walter Roberts, $40
E. S. Ciruti, $20
Tom L. Smith, $20
L. M. Hovey, $15
James P. Avera, $10
J. M. Haggard, $5
H. W. Herring, $10
T. E. Bowen, Jr., $15
Clayton D. Huddle, $50
Clarence Phillips, $5
Roy R. Trahan, $100
John B. Coon, $5
Wm. C. Dunahoe, $5
Clyde Foster, $15
G. F. Benedict, $15
Walter C. Pond, $15
Joseph M. Altemore, $100
J. M. Richards, $50
C. G. Freeland, $50
Lonnie E. Gray, $10
Wiley R. Hiett, $25
Wilson Manahan, $35
Wm. G. Kelly, $35
A. E. Hill, $40
Chas. L. Justice, $35
Edwin R. Williams, $100
John W. Baldwin, $10
Dewey O. Cartlidge, $5
Archie L. Suggs, $25
Stephen P. Coburn, $100
Jesse D. Higginbotham, $25
Lawrence H. Fanestiel, $10
Roy J. Schweers, $30
Melvin D. Parker, $100
John H. Savage, Jr., $75
Carl J. Lee, $65
Roy A. Brown, $100
James W. Jones, $10
Glenn B. Harper, $5
Damon F. Nickerson, $25
Miss Oweta Ross, $100
Wm. H. McGonagle, Jr., $20
Louis S. Hunsucker, $25
John L. Skains, $100
Wm. E. Wood, $20
Jesse E. Brady, $25
E. L. Holder, $100
L. L. Hallman, $5
L. C. White, $5
Fred E. Miller, $100
Thelma A. Duncan, $5
Ellis V. Caldwell, $5
Allen R. Ueckert, $10
Laurance E. Ross, $25
Marion W. Barden, $10
H. A. Herrington, $45
Dudley D. Myers, $115
Wm. A. Ward, $25
Claude W. Smalling, $25
A. R. Wilson, $10
M. E. Sheats, $5
Geo. J. Toups, $5
Joe Fred Voparil, $100
Fred R. Treadway, $100
Manry H. Emanuel, $100
Jesse D. Howard, $25
Morton Williams, $50
Waldemar F. Henniger, $5
John W. Lounsberry, Jr., $100
S. E. White, $15
J. E. Walker, $100
H. W. Kinsey, $5

Ingleside Refinery

S. E. Dixon, $10
Ruth E. Slaughter, $10
B. C. Roberts, $25
R. L. Hovey, $15
B. L. Matthews, $20
W. Murgatroyd, Jr., $10
S. T. Lewis, $100

HOUSTON OFFICE AND MISCELLANEOUS

Gaston H. Parrish, $25
Jack E. Kilgore, $50

PRODUCTION DEPARTMENT

M. Ruth Smith, $15
Westbrook Teer, $20
Geo. S. Phillips, Jr., $10
King P. Childers, $10
J. G. Grant, $10
J. F. Homer, $10
Leslie E. Upton, $10
E. H. Menge, $10
D. L. McKnight, $5
W. L. Purswell, $5
S. U. Funderburk, $25
Ray C. Hilbert, $5
Thos. F. McKey, $25
Claude Brewer, $15
Osa L. Holt, $10

NATURAL GAS AND GASOLINE

N. M. Kunkle, $100
Otto C. Lauhoff, $10

HUMBLE PIPE LINE COMPANY

R. L. Beardsley, $50
R. W. Wilcox, $10
Ronald M. Johnson, $10
J. C. Westbrook, $5
Early Phinnie, $5
C. W. Reed, $10
Earl B. Walker, $10

Artist E. M. (Buck) Schiwetz, whose facile water color brushes created the front and back covers and the Louisiana swampland scenes on Pages 14 and 15, is truly a self-made artist. After earning his Master's degree in Architecture at Texas A. & M. College in 1922, he worked for a few years at his profession. Soon fine art began to appeal to him more than architecture and he did what many a young and ambitious artist has done. He went to New York. There, at the Art Students League, he took the only formal training of his career in art—a 30-day course in the technical phases of etching.

Since 1929 he has devoted much of his time to commercial art as art director for a Houston advertising agency, but his abiding interest in fine arts has prompted him to paint many pictures which today hang in galleries. The oil industry and Texiana are his two favorite fields, but the intriguing swamplands of Louisiana hold much appeal for him. While he excels in water colors, there is scarcely a medium of art which he has not mastered. His works have been hung in International water color shows and in galleries in New York, Chicago, Detroit, Philadelphia, and in Texas cities. The Schiwetz studio in Houston is a haven for young artists, whom he delights in helping.

LIGHT ENDS FRACTIONATING unit at Baytown refinery as it looks at night.

ROAD CLOSED
— TO —
MOTOR TRAFFIC

7th WAR LOAN